IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Lutz Rosenpflanzer, et al.	Art Unit:	2176
Serial No.:	10/607,102	Examiner:	Nathan Hillery
Filed:	June 25, 2003		
Title:	MANAGING DIFFERENT REPRESENTATIONS OF INFORMATION		

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT IN REPLY TO ACTION OF AUGUST 2, 2006

Please amend the above-identified application as follows:

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A computer-implemented method for managing different representations of information, comprising:

receiving information describing a first representation of data variable information in a first data structure in a first data processing system;

receiving information describing a second representation of the data variable information in ~~a second~~ the first data structure in a second data processing system; and

mapping the first representation of the data variable information to the second representation of the data variable information, the mapping comprising:

identifying a correspondence between the first representation and the second representation using a set of data processing activities performed in accordance with a first set of machine-readable instructions, ~~and~~

representing the correspondence using the set of data processing activities performed in accordance with the first set of machine-readable instructions, and

making the correspondence between the first representation and the second representation available for changing the first representation of the data variable information to the second representation of the data variable information.

2. The method of claim 1, wherein:

mapping the first representation to the second representation further comprises establishing a second set of machine readable instructions for changing the first representation of the data variable information to the second representation of the data variable information; and

making the correspondence available comprises making the second set of machine readable instructions available.

3. (Currently Amended) The method of claim 2, wherein establishing the second set of machine-readable instructions comprises establishing a criterion for identifying a data variable in a first data structure.

4. (Currently Amended) The method of claim 2, wherein establishing the second set of machine-readable instructions comprises establishing an extensible stylesheet language (XSL) file that describes how to change the first representation of the data variable information.

5. (Currently Amended) The method of claim 2, wherein establishing the second set of machine-readable instructions comprises:

receiving a framework for instructions; and

inserting instructions into the framework.

6. (Currently Amended) The method of claim 2, wherein establishing the second set of machine-readable instructions comprises selecting a germane instruction for transforming the first representation to the second representation from a collection of instructions for transforming the first representation to the second representation.

7. (Currently Amended) The method of claim 2, wherein the second set of machine-readable instructions ~~comprise~~ comprises instructions for identifying the data variable in a data structure.

8. (Previously Presented) The method of claim 7, wherein the instructions for identifying the data variable comprise an Xpath expression for identifying an object of an object class that includes the data variable.

9. (Currently Amended) The method of claim 1, further comprising changing the first representation of the data variable information in the data variable in the first data processing system to the second representation of the data variable information in the second data processing system using the correspondence between the first representation and the second representation.

10. (Previously Presented) The method of claim 1, further comprising receiving a trigger for the mapping, the trigger identifying a data object class that includes the data variable.

11. (Previously Presented) The method of claim 1, further comprising storing results of the mapping in a collection of mapping results.

12. (Previously Presented) The method of claim 1, wherein the information describing the first representation of data variable information comprises instructions for locating the information in the first data processing system.

13. (Previously Presented) The method of claim 1, wherein the information describing the first representation of data variable information comprises the first representation of data variable information.

14. (Original) The method of claim 1, further comprising:

receiving instructions for data interfacing with the first data processing system; and

adding the interfacing instructions to results of the mapping.

15. (Currently Amended) A computer program product, tangibly embodied in one or more machine-readable storage devices, for managing different representations of information, the computer program product being operable to cause one or more data processing apparatus to:

receive a data variable in a data structure, wherein data variable information in the data variable has a first representation associated with a first system;

receive a description of a second representation of the data variable information, wherein the second representation is associated with a second system;

identify and represent a correspondence between the first representation and the second representation to generate a set of mapping information; ~~and~~

change the data variable information from the first representation to the second representation in accordance with the set of mapping information and separately from any change to the structure of the data structure; and

make the data variable information having the second representation available in the data structure.

16. (Previously Presented) The computer program product of claim 15, wherein the product is also operable to cause the data processing apparatus to:

receive the data variable information formatted in accordance with a first customization setting of the first system;

receive a second customization setting of the second system, wherein the first customization setting and the second customization setting specify at least one of a language, a format, and a unit of the data variable information; and

change the data variable information from being in accordance with the first customization setting to being in accordance with the second customization setting.

17. (Previously Presented) The computer program product of claim 15, wherein the product is also operable to cause the data processing apparatus to receive a current description of the first representation.

18. (Original) The computer program product of claim 15, wherein the product is also operable to cause the data processing apparatus to receive the description of the second representation from the second system.

19. (Previously Presented) The computer program product of claim 15, wherein the product is also operable to cause the data processing apparatus to:

receive the data variable in a data object including a collection of further variables;

receive descriptions of further representations of information in the further variables, the further representations associated with the second system; and

change representations of data variable information in the further variables to the further representations.

20. (Original) The computer program product of claim 15, wherein the product is also operable to cause the data processing apparatus to change the data structure to a second data structure associated with the second system.

21. (Currently Amended) The computer program product of claim 15, wherein the product is also operable to cause the data processing apparatus to:

establish machine-readable instructions for changing the data variable information from the first representation to the second representation; and

make the machine readable instructions available.

22. (Previously Presented) The method of claim 1, wherein the first representation specifies a language of the information in the data variable.

23. (Previously Presented) The method of claim 1, wherein the first representation specifies a unit of the information in the data variable.

24. (Previously Presented) The method of claim 1, wherein the first representation specifies a notation of the information in the data variable.

25. (Previously Presented) The method of claim 1, wherein the first representation specifies a format of the information in the data variable.

26. (Previously Presented) The computer program product of claim 15, wherein the first representation specifies a language of the information in the data variable.

27. (Previously Presented) The computer program product of claim 15, wherein the first representation specifies a unit of the information in the data variable.

28. (Previously Presented) The computer program product of claim 15, wherein the first representation specifies a notation of the information in the data variable.

29. (Previously Presented) The computer program product of claim 15, wherein the first representation specifies a format of the information in the data variable.

30. (New) The method of claim 1, wherein making the correspondence between the first representation and the second representation available comprises providing the correspondence in a directory of mapping information.

REMARKS

Claims 1-30 are pending. Claims 1 and 15 are in independent form. Favorable reconsideration and further examination are respectfully requested.

REJECTIONS UNDER 35 U.S.C. § 101

In the Office action mailed August 2, 2006, claims 1-29 were rejected under 35 U.S.C. § 101 as allegedly being drawn to non-statutory subject matter.

The rejection is based on two contentions, namely, that the claims are not practical applications because "nothing is made available" and because "the claims fail to fulfill the specific, substantial, and credible utility sought by the disclosed invention."

Although applicant disagrees with the bases of the rejection and believes that "making available" was inherent in the claims, claim 1 has been amended to recite "making the correspondence between the first representation and the second representation available for changing the first representation of the data variable information to the second representation of the data variable information." Claim 15 has been amended to recite "make the data variable information having the second representation available in the data structure."

Accordingly, in both claim 1 and 15, something is "made available" and thus disclosed specific, substantial, and credible utilities are claimed. Applicant therefore requests that the rejections of claims 1-29 under 35 U.S.C. § 101 be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 112

Claims 1-14 and 22-25 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to provide sufficient written description so as to enable one of ordinary skill to make and use the claimed subject matter. In particular, the rejection contends that an enabling written description for "the integration engine can identify and represent the correspondence between the customization settings, and hence the customization of data variable, in the first and second systems" is provided, but that an insufficient written description of identifying and representing a correspondence between the first representation [of data variable information] and the second representation [of the data variable information] using a set of data *processing* activities performed in accordance with a set of machine-readable instructions is not. Applicant respectfully disagrees.

As a threshold matter, claim 1 has been amended to recite "a set of data processing activities" rather than "a set of data activities." Applicant apologizes for any confusion that this typographical error may have caused. Further, Applicant submits that it is self-evident that the "integration engine" comprises a set of machine-readable instructions and performs a set of data processing activities. Finally, the customization of a data variable clearly "tailors the representation of information in data variables to a specific purpose," as described, e.g., at page 7, line 5-24.

Accordingly, both the written description and enablement requirements of 35 U.S.C. § 112, first paragraph have been met. Applicant therefore requests that the rejections of claims 1-14 and 22-25 under 35 U.S.C. § 112, first paragraph be withdrawn.

Claims 1-14 and 22-25 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant submits that the above-noted amendment of claim 1 to recite "a set of data processing activities" renders the meaning of claim 1 clear. Applicant therefore requests that the rejections of claims 1-14 and 22-25 under 35 U.S.C. § 112, second paragraph be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 102(e)

Claims 1 and 22-25: Claims 1 and 22-25 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent Publication 2002/0103881 to Granade et al. (hereinafter "Granade").

As amended, claim 1 relates to a computer-implemented method for managing different representations of information. The method includes receiving information describing a first representation of data variable information in a first data structure in a first data processing system, receiving information describing a second representation of the data variable information in the first data structure in a second data processing system, and mapping the first representation of the data variable information to the second representation of the data variable information. The mapping includes identifying a correspondence between the first representation and the second representation using a set of data processing activities performed in accordance with a first set of machine-readable instructions, representing the correspondence using the set of data processing activities performed in accordance with the first set of machine-readable instructions, and making the correspondence between the first representation and the second representation available for changing the first representation of the data variable information to the second representation of the data variable information.

Granade is not understood to disclose or to suggest features of claim 1. In this regard, Granade is not understood to disclose or to suggest a computer-implemented method that includes mapping a first representation of the data variable information to a second representation of the data variable information. Instead, Granade is understood to focus on changing the information itself.

This is explicitly illustrated in the portion of Granade relied upon in the rejection. In this regard, Granade describes a mobile presentation server 114 that is part of a system for integrating different backend systems with mobile devices. *See, e.g., Granade*, para. [0026]. In this integration system, mobile presentation server 114 receives results from the various backend servers in an intermediary language that is compatible with XML. *See Granade*, para. [0029]. According to Granade,

> "Mobile presentation server 114 identifies the characteristics of the mobile device including display size and browser type and modifies the information for presentation on the mobile device in the most suitable format. For example, mobile presentation server 114 can modify the resolution of an image to fit the display of a particular mobile device." *See Granade*, para. [0029] (emphasis added).

Applicants thus respectfully submit that Granade modifies the information itself, rather than the representation of the information, as recited in claim 1. This is consistent with the example provided by Granade, namely, modifying the resolution of an image. Even if one were to consider image data to be "data variable information" for the sake of argument (which applicant does not concede), it is clear that processes such as decimation can be used to change the resolution of the image without any concomitant change in the representation of the image data.

The distinction between the information and the representation of the information is further highlighted by the rejections of dependent claims 22-25, which respectively recite that the first representation of data variable information specifies a language, a unit, a notation, and a format of the information in the data variable. Once again, it is clear that results from Granade's backend system can be converted to an intermediary language and passed to a mobile device without changing the language, a unit, a notation, or a format of the information.

Accordingly, claims 1 and 22-25 are not anticipated by Granade. Applicants thus request that the rejections of claim 1 and the claims dependent therefrom be withdrawn.

Claim 2: Claim 2 was rejected under 35 U.S.C. § 102(e) as anticipated by Granade. Claim 2 relates to the method of claim 1, where mapping the first representation to the second representation includes establishing a set of machine readable instructions for changing the first representation of the data variable information to the second representation of the data variable information.

As best understood, the rejection of claim 2 is based on the contention that Granade's modifying of information for presentation constitutes the establishment of a set of machine readable instructions for changing a representation of data variable information.

Applicants respectfully disagree. As discussed above, information can clearly be modified without changing its representation. Moreover, nowhere in Granade are machine readable instructions established. Indeed, the rejection lacks even a bald assertion pointing to any item in Granade that constitutes machine readable instructions, as claimed.

Accordingly, claim 2 is also not anticipated by Granade. Applicants thus request that the rejections of claim 2 and the claims dependent therefrom be withdrawn for this reason as well.

Claims 15 and 26-29: Claims 15 and 26-29 were rejected under 35 U.S.C. § 102(e) as anticipated by Granade.

As amended, claim 15 relates to a computer program product, tangibly embodied in one or more machine-readable storage devices, for managing different representations of information. The computer program product is operable to cause one or more data processing apparatus to receive a data variable in a data structure, receive a description of a second representation of the data variable information, identify and represent a correspondence between the first representation and the second representation to generate a set of mapping information, change the data variable information from the first representation to the second representation in accordance with the set of mapping information and separately from any change to the structure of the data structure, and make the data variable information having the second representation available in the data structure. The data variable information in the data variable has a first representation associated with a first system. The second representation is associated with a second system.

Granade is not understood to disclose or to suggest features of claim 15. In this regard, Granade is not understood to disclose or to suggest a computer program product that is operable to cause one or more data processing apparatus to identify and represent a correspondence between a first representation of data variable information in a data variable and a second representation of the data variable information to generate a set of mapping information.

In this regard, as discussed above, Granade is understood to focus on changing the information itself, rather than representations of the data variable information. For example, even if one were to consider image data to be "data variable information," it is clear that processes such as decimation can be used to change the resolution of the image without any concomitant change in the representation of the image data.

The distinction between the information and the representation of the information is further highlighted by the rejections of dependent claims 26-29, which respectively recite that the first representation of data variable information specifies a language, a unit, a notation, and a format of the information in the data variable. Once again, it is clear that results from Granade's backend system can be converted to an intermediary language and passed to a mobile device without changing the language, a unit, a notation, or a format of the information.

Accordingly, claims 15 and 26-29 are not anticipated by Granade. Applicants thus request that the rejections of claim 15 and the claims dependent therefrom be withdrawn.

Claim 21: Claim 21 was rejected under 35 U.S.C. § 102(e) as anticipated by Granade. Claim 21 relates to the computer program product of claim 15, wherein the product is also operable to cause the data processing apparatus to establish machine readable instructions for changing the data variable information from the first representation to the second representation.

As best understood, the rejection of claim 21 is based on the contention that Granade's modifying of information for presentation constitutes the establishment of a set of machine readable instructions for changing a representation of data variable information.

Applicants respectfully disagree. As discussed above, information can clearly be modified without changing its representation. Moreover, nowhere in Granade are machine readable instructions established. Indeed, the rejection lacks even a bald assertion pointing to any item in Granade that constitutes machine readable instructions, as claimed.

Accordingly, claim 21 is also not anticipated by Granade. Applicants thus request that the rejection of claim 21 be withdrawn for this reason as well.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

CONCLUSION

Applicants' attorney can be reached at the address shown above. Telephone calls regarding this application should be directed to 858-678-4346.

No fees are believed due at this time. Please charge any fees to deposit account 06-1050.

Respectfully submitted,

Date: October 3, 2006

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